ABSTRACT OF THE DISCLOSURE

A system for determining a response characteristic of an nth order linear system, such as a phase locked loop, is disclosed. An input signal is supplied to the linear system, and the system measures an output signal produced by the linear system. A variance

5   record is constructed for a measurable quantity, such as jitter, extracted from the output signal. The response characteristic of the linear system is then obtained from the variance record. The response characteristic, such as the transfer function, noise processes, and/or power spectral density (PSD), may be found through a numerical or analytical solution to a mathematical relationship between a response function of the nth

10   order linear system and the variance record.